

REMARKS

I. Introduction

With the cancellation herein without prejudice of claims 2, 3 and 5, and the addition of herein of new claims 16 to 23, claims 1, 4 and 6-23 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the indication that all certified copies of the priority documents have been received.

Applicants thank the Examiner for considering the previously filed Information Disclosure Statement, PTO-1449 paper and cited references.

II. Allowable Subject Matter

Applicants notes with appreciation the indication of allowable subject matter contained in claims 13 and 14. In this regard, the Examiner will note that claim 13 has been rewritten herein in independent form to include all of the limitations of its base claim and intervening claims. It is therefore respectfully submitted that claim 13 is in condition for immediate allowance. Claim 14 depends from claim 13, so claim 14 is also believed to be in condition for immediate allowance.

III. Rejection of Claims 1, 4 to 10, 12 and 15 Under 35 U.S.C. § 102(b)

Claims 1, 4 to 10, 12 and 15 were rejected under 35 U.S.C. § 102(b) as anticipated by Japanese Patent No. 2002-4985 (“Inui et al.”). Applicants respectfully submit that Inui et al. do not anticipate the present claims for the following reasons.

Claim 1, as amended, relates to a method for starting an engine system of a vehicle, in which the method includes performing a starter-free starting method in response to a start request, testing whether the starter-free starting method leads to a successful start of the engine system, and if the engine system is not successfully started using the starter-free starting method, automatically starting the engine system using a starter. Claim 1 further recites that the testing for the successful start is conducted by evaluating at least one of an oil temperature of the engine system and a position of a crankshaft of the engine system.

In contrast, Inui et al. purport to relate to a starting device, which detects a cylinder in the expansion phase as the engine is running down based on signals of the crank-

angle sensor and camshaft-angle sensor so that a specified quantity of fuel may be injected into this cylinder. To start the engine, an ignition is induced so as to induce a combustion in the cylinder which was detected in the expansion phase. In this manner, the starting process is implemented solely by combustion pressure. The starting device also has a safety function. If the described starting process is successful, then a starter 14 is prevented from operating. If the described starting process does not run successfully, then the starter 14 is switched on. In this regard, the assessment as to whether the described starting process executed independently of the starter 14 is successful is carried out by evaluating the engine speed.

It is respectfully submitted that Inui et al. do not disclose, or even suggest, conducting a test for a successful start by evaluating an oil temperature of the engine system and/or a position of a crankshaft of the engine system, as recited in claim 1. Indeed, the determination of the position of the crankshaft is used only to ascertain a cylinder in the expansion phase that is suitable for a subsequent starting process. Accordingly, for at least these reasons, it is respectfully submitted that Inui et al. do not anticipate claim 1.

With respect to claims 4, 6 to 10, and 12, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, and with respect to claim 15, which recites limitations analogous to claim 1, it is respectfully submitted that Inui et al. do not anticipate these claims for at least the same reasons given above in support of the patentability of claim 1. Withdrawal of this rejection is therefore respectfully requested.

IV. Rejections of Claims 2 and 3 Under 35 U.S.C. § 103(a)

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as unpatentable over the Inui et al. in view of U.S. Patent No. 6,286,470 (“Riksen et al.”). Claims 2 and 3 have been cancelled and their features incorporated into claim 1. It is respectfully submitted that the combination of Inui et al. and Riksen et al. does not render obvious the present claim 1 for at least the following reasons.

As explained above, Inui et al. do not disclose, or even suggest, conducting a test for a successful start by evaluating an oil temperature of the engine system and/or a position of a crankshaft of the engine system, as recited in claim 1.

Riksen et al. relate to a starting process for an internal combustion engine, in which the starter is adjusted to a predefined starting speed based on various vehicle operation or combustion parameters. In particular, during the starting process, the starting speed is established on the basis of the engine oil temperature, the cooling water temperature, and the battery state. In this regard, it is respectfully submitted that position of the crankshaft is not

considered, and that the oil temperature is only used to ascertain the starting speed and not to test for a successful start. Accordingly, Riksen et al. do not disclose, or even suggest, conducting a test for a successful start by evaluating an oil temperature of the engine system and/or a position of a crankshaft of the engine system, as recited in claim 1.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). As indicated above, neither Inui et al. nor Riksen et al. discloses, or even suggests, conducting a test for a successful start by evaluating an oil temperature of the engine system and/or a position of a crankshaft of the engine system, as recited in claim 1. It is therefore respectfully submitted that the combination of Inui et al. and Riksen et al. does not render obvious claim 1.

Moreover, it is respectfully submitted that the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office Action's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Office Action reflects a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. Accordingly, it is respectfully submitted that claim 1 is allowable for these reasons.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

V. Rejection of claim 11 under 35 U.S.C. § 103(a)

With respect to the rejection of claim 11 under 35 U.S.C. § 103(a) as unpatentable over Inui et al. in view of U.S. Patent No. 4,286,683 ("Zeigner et al."), it is respectfully submitted that even if it were proper to combine the references as suggested by

the Examiner (which is not conceded), the secondary Zeigner et al. reference does not cure the critical deficiencies of the Inui reference (as explained above) with respect to claim 1, from which claim 11 ultimately depends. Indeed, the Office Action merely uses Zeigner to assert disclosure of an accelerator. Accordingly, claim 11 is patentable for the above reasons and the reasons given in support of the patentability of claim 1.

VI. New Claims 16 to 32

New claims 16 to 23 have been added herein. It is respectfully submitted that new claims 16 to 23 add no new matter and are fully supported by the present application, including the Specification. New claim 16 depends from claim 1, and is therefore allowable for at least the same reasons as claim 1. Claims 17 to 23 are allowable for reasons stated below.

New claims 17 and 22 recite that in response to a start request after the engine system has been switched off and while the engine system is running down, the engine system is started using a starter-free starting method or a starter depending on the speed of the engine system. It is respectfully submitted that references cited by the Office Action, including Inui et al., do not disclose, or even suggest, these recited features of claims 17 and 22. In particular, Inui et al. state that a cylinder is detected in the expansion phase while the engine is running down, but in this instance, this is performed simply to identify a particular cylinder that would be suitable for a subsequent starter-free starting process. In this regard, Inui et al. do not discuss how to proceed in the event of a start request while the engine is running down. By contrast, according to claims 17 and 22, in response to a start request after the engine has been switched off and while the engine is running down, the speed of the engine system is used to determine whether the engine system can be started starter-free or using a starter. Hence, depending on the speed ascertained, a decision is then made whether the start request will be implemented in a starter-free manner or using the starter. According to Inui et al. however, the engine speed is not used to decide whether the engine should be started starter-free, but rather, only to determine whether the starter-free starting process is successful, and if this is not the case, then the starting process is continued using the starter. Accordingly, for at least these reasons, claims 17 and 22, as well as claims 18 to 21, which ultimately depend from claim 17, are allowable.

Claim 23 recites that if an induced starter start fails, the engine system is automatically started using a starter-free method. It is respectfully submitted that the references cited by the Office Action, including the Inui et al. reference does not disclose

these features. Rather, Inui et al. merely disclose that in the event of an unsuccessful starter-free starting process, the starter is used, which is the reverse process of that which is recited in claim 23. Accordingly, for at least these reasons, claim 23 is allowable.

VII. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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